

Day-9 (New Pattern Inequality)

In the following question, a question is followed by two conditions named as Quantity-I ( $Q_1$ ) and Quantity-II ( $Q_2$ ). You are required to solve each Quantity-I and Quantity-II. And compare each of the quantity. Then answer

- 1.) If ( $Q_1$ ) > ( $Q_2$ )
- 2.) If ( $Q_1$ )  $\geq$  ( $Q_2$ )
- 3.) If ( $Q_1$ ) < ( $Q_2$ )
- 4.) If ( $Q_1$ )  $\leq$  ( $Q_2$ )
- 5.) If ( $Q_1$ ) = ( $Q_2$ ) Or Relationship cannot be established between ( $Q_1$ ) and ( $Q_2$ ).

**Ques:** What will be the speed of current?

( $Q_1$ ) The boat takes 1.5 hours less to cover a distance of 18 km downstream as compare to cover the same distance upstream if it goes at the speed of 9km/hr. in still water.

( $Q_2$ ) The boat covers 12 km in 40 minute upstream and 15 km in 45 min downstream.

**Sol:**

Let the speed of stream be S.

$Q_1$

$$\frac{18}{9-S} - \frac{18}{9+S} = 1.5$$

$$S = 3 \text{ Km/hr.}$$

$Q_2$

$$U = \frac{12}{40} \times 60 = 18 \text{ Km/hr.}$$

$$D = \frac{15}{45} \times 60 = 20 \text{ Km/hr.}$$

$$S = \frac{20-18}{2} = 1 \text{ Km/hr}$$

$Q_1 > Q_2$  (Option 1 is the Answer)